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IN THE CLAIMS:

Please amend claim 33, cancel claims 44, 46, 48 and 51, and add new claims 56-58.

This listing of claims will replace all prior versions, and listings of the claims in the application.

Listing of the claims

1. (Previously presented) A pyrogen-free composition comprising a plasmid comprising a nucleotide sequence that encodes an immunogen operably linked to regulatory elements and a nucleotide sequence that encodes an immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-I, MIP-lα, MIP-lβ, IL-8, and RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1. Mac-1, pl50.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA3, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-l, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE and wherein said immunogen is a pathogen antigen.

2-3. (Canceled)

- 4. (Previously presented) The pyrogen-free composition of claim 1 wherein said immunogen is an HIV-1 antigen.
- 5. (Canceled)

- 6. (Previously presented) An injectable pharmaceutical composition comprising the pyrogen-free composition of claim 1.
- 7. (Previously presented) A method of inducing cytotoxic T cell response in an individual against an immunogen comprising administering to said individual a pyrogen free composition of claim 1 by intramuscular injection.
- 8. (Canceled)
- 9. (Previously presented) The pyrogen-free composition of claim 1 wherein said immunogen is herpes simplex antigen HSV2gD.
- 10. (Previously presented) An injectable pharmaceutical composition comprising the pyrogen-free composition of claim 9.
- 11. (Previously presented) A method of immunizing an individual against a herpes simplex virus infection comprising administering to said individual a pyrogen-free composition of claim 9 by intramuscular injection.
- 12. (Previously presented) A pyrogen-free composition comprising two plasmids: a first plasmid comprising a nucleotide sequence that encodes an immunogen operably linked to regulatory elements; and a second plasmid comprising a nucleotide sequence that encodes an immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-I, MIP-la, MIP-lp, IL-8, and RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1,

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VLA-1. Mac-1, pl50.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA3, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-1, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE wherein said immunogen is a pathogen antigen.

13–14. (Canceled)

- 15. (Previously presented) The pyrogen free composition of claim 12 wherein said immunogen is an HIV-1 antigen.
- 16. (Canceled)
- 17. (Previously presented) An injectable pharmaceutical composition comprising the pyrogen free composition of claim 12.
- 18. (Previously presented) A method of inducing cytotoxic T cell response in an individual against an immunogen, comprising administering to said individual a pyrogen free composition of claim 12 by intramuscular injection.

19-32. (Canceled)

33. (Currently amended) A method of inducing cytotoxic T cell response in an individual against an immunogen comprising administering to said individual by intramuscular injection: a nucleie acid molecule plasmid comprising a nucleotide sequence that encodes said

immunogen operable linked to regulatory elements; and a nucleic acid molecule comprising a nucleotide sequence that encodes said immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-I, MIP-la, MIP-lp, IL-8, and RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1. Mac-1, pl50.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA3, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-l, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE wherein the immunogen is a pathogen antigen.

- 34. 35. (Canceled)
- 36. (Original) The method of claim 33 wherein said immunogen is an HIV-1 antigen.
- 37-41. (Canceled)
- 42. (Previously presented) The pyrogen free composition of claim 12 wherein said immunogen is herpes simplex antigen HSV2gD.
- 43. (Previously presented) An injectable pharmaceutical composition comprising the pyrogen free composition of claim 42.
- 44-45. (Canceled)

A plasmid comprising a nucleotide sequence that encodes an immunogen operably linked to regulatory elements and a nucleotide sequence that encodes an immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-I, MIP-la, MIP-lp, IL-8, and RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1. Mac-1, pl50.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA3, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-l, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE, wherein said immunogen is an influenza antigen.

47-48. (Canceled)

49. (Previously presented) A pyrogen-free composition comprising two plasmids: a first plasmid comprising a nucleotide sequence that encodes an immunogen operably linked to regulatory elements; and a second plasmid comprising a nucleotide sequence that encodes an immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-I, MIP-la, MIP-lp, IL-8, and RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1. Mac-1, pl50.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA3, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-l, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE, and wherein said immunogen is an influenza antigen.

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- 50. (Previously presented) A method of immunizing an individual against a influenza infection comprising administering to said individual a composition of claim 49 by intramuscular injection.
- 51. (Canceled)
- 52. (Previously presented) A method of claim 33 wherein said immunogen is an influenza antigen.
- 53. (Previously presented) The pyrogen free composition of claim 1 wherein said immunogen is a viral antigen.
- 54. (Previously presented) The pyrogen free composition of claim 12 wherein said immunogen is a viral antigen.
- 55. (Previously presented) The method of claim 33 wherein said immunogen is a viral antigen.
- 56. (New) A method of enhancing a cytotoxic T cell response in an individual against an immunogen comprising administering to said individual by intramuscular injection: a plasmid comprising a nucleotide sequence that encodes said immunogen operable linked to regulatory elements; and a nucleic acid molecule comprising a nucleotide sequence that encodes said immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-I, MIP-la, MIP-lp, IL-8, and RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1,

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VLA-1. Mac-1, pl50.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA3, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-1, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE wherein the immunogen is a pathogen antigen which when expressed in an individual following intramuscular injection of a plasmid encoding said pathogen antigen induces a cytotoxic T cell response against an immunogen.

- 57. (New) The method of claim 56 wherein said pathogen antigen is a viral protein.
- 58. (New) The method of claim 56 wherein said pathogen antigen is an influenza protein.